



Department of Energy

Fermi Site Office
Post Office Box 2000
Batavia, Illinois 60510

OCT 05 2011

Dr. Bruce L. Chrisman
Chief Operating Officer
Fermilab
P.O. Box 500
Batavia, IL 60510

Dear Dr. Chrisman:

SUBJECT: FINAL ENVIRONMENTAL PREFERABLE PURCHASING/SUSTAINABLE
ACQUISITION PROGRAM ASSESSMENT REPORT

As part of our Operational Oversight Program and Integrated Assessment Schedule, the Department of Energy (DOE), Fermi Site Office (FSO), initiated an assessment of Fermilab's Environmental Preferable Purchasing/Sustainable Acquisition Program. Mr. Joe DiMatteo of the DOE Chicago Office and Mr. Rick Hersemann of FSO performed the assessment on August 3-4, 2011.

On September 12, 2011, FSO provided a draft copy of the assessment report to Fermilab staff for a factual accuracy check. On September 30, 2011, Fermilab notified FSO that it had no comments on the draft report. Enclosed is the final assessment report.

The DOE assessment protocols identify three levels of findings, which have been applied in this assessment:

Level 1 Findings – These are issues of major significance that warrant a high level of attention on the part of line management. Typically these reflect a gap in addressing requirements or a systemic problem with implementing requirements. If left uncorrected, this level of finding could negatively impact the adequacy of operations and/or accomplishment of the SC mission.

Level 2 Findings – These are issues that represent a non-conformance and/or deviation with implementation of a requirement. Multiple issues at this level, when of a similar nature, may be rolled-up together into one or more Level 1 Findings.

Level 3 Findings – These are issues where it is recognized that improvements can be gained in process, performance, or efficiency already established for meeting a requirement. This level of finding should also include minor deviations observed during oversight activities that have been promptly corrected on the spot and verified as completed.

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The Environmental Preferable Purchasing/Sustainable Acquisition Program assessment identified one Level 3 Finding:

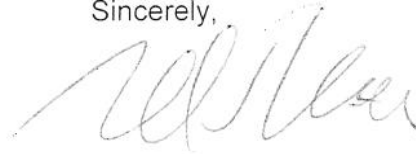
1. Fermilab needs to determine and implement the appropriate mechanism for the monitoring and measurement of its Sustainable Acquisition Program.

Please review the report and take actions consistent with your CAS. By October 31, 2011, this office will utilize frESHTRK to determine what if any, actions you will take to address the report findings. It is our understanding that you will provide a sound basis for that opinion in frESHTRK. If we have misinterpreted your system, please let us know.

We certainly appreciate the participation and candor of all who participated in this constructive assessment. In particular, we recognize the efforts of the Business Services Section; the Directorate; the Environment, Safety and Health Section; the Facilities Engineering Support Section; the Particle Physics Division; and the Technical Division for their input and cooperation.

If you have any questions or comments concerning the enclosed report, please contact Rick Hersemann, of my staff, at extension 4122.

Sincerely,



Michael J. Weis
Site Manager

Enclosure:
As Stated

cc: P. Oddone, w/o encl.
Y.-K. Kim, w/o encl.
N. Grossman, w/encl.

Environmental Preferable Purchasing/Sustainable Acquisition Final Assessment Report Dated September 30, 2011

Background: Executive Order (E.O.) 13514, Federal Leadership in Environmental, Energy and Economic Performance, provides in Section VII, direction to Federal Agencies to develop procurement and acquisition programs that give preference in part to recycled content products designated in Comprehensive Procurement Guidelines, Energy Star and designated energy efficient products, Watersense products, bio-based products and alternative fueled vehicles. E.O. 13514 builds upon; however, it does not supplant E.O. 13423, Strengthening Energy, Environmental and Transportation Management which also contains in Section 2(h) the “sustainable practices” for the procurement of electronics and the requirement that they meet certain Electronic Product Environmental Assessment Tool (EPEAT) standards. E.O. 13423 and 13514 are embodied into Department of Energy (DOE) Order 436.1 Departmental Sustainability which provides the implementing mechanism for sustainable acquisition for DOE.

Additionally, the Department of Energy Acquisition Rules (DEAR) 48 CFR 923.1 and 970.2301 provides the regulatory requirements applicable for sustainable acquisition programs and appropriate contract clauses for Departmental Management & Operating (M&O) contractors.

Fermi National Accelerator Laboratory (Fermilab) reports annually to the DOE on certain specified measures through the Pollution Prevention Tracking and Reporting System (PPTRS). For Fiscal Year 2011, the PPTRS reporting requirements relate to a specified percentage (95%) of contracts for custodial and construction activities that have clauses for sustainable practices and products appropriate for the specific nature and activities of those two types of contracts.

Objective: This assessment is part of Fermi Site Office’s (FSO) Operational Oversight Program and Integrated Assessment Schedule and was intended to evaluate the status of the Environmental Preferable Purchasing (EPP) Program hereafter referred to as the Sustainable Acquisition Program at Fermilab. This assessment was a follow up to a previous assessment conducted in September 2009 on this topical area. This assessment will also evaluate previous corrective actions and any proposed program modifications that are anticipated due to changing sustainable acquisition requirements.

Scope & Assessment Conduct: The overall scope of the assessment evaluated the Sustainable Acquisition program structure and assigned roles and responsibilities at Fermilab. The conduct of the assessment consisted of interviews with appropriate personnel, and the review of documentation and records. The audit was conducted August 3-4, 2011, by R. Hersemann of FSO and J. DiMatteo of the DOE-Chicago Office. The close-out briefing for the assessment was conducted on August 11, 2011. The specific scope of the assessment focused on the following processes and topical areas:

- FESHM 5011: Sustainable Acquisition
- Fermilab 2010 Site Sustainability Plan
- PPTRS
- Environmental Management Program Form #2010005, Materials-Procurement Environmentally Preferable Purchasing
- Sustainable Acquisition Training
- DEAR and Federal Acquisition Rules Clauses

Results: The assessment results of the Sustainable Acquisition Program are discussed as follows:

- **FESHM 5011: Sustainable Acquisition**
Fermilab Environmental Safety and Health Manual (FESHM) 5011, dated January 2011, is intended to provide the programmatic structure to the Sustainable Acquisition processes at Fermilab by identifying the basis of underlying requirements, defining terms, assigning roles and responsibilities, and providing guidance and identifying requirements.

The review of FESHM 5011 indicates that while it is new and only recently implemented, it fills a previous gap by establishing a Sustainable Acquisition program at Fermilab. This FESHM Chapter is generally adequate in documenting the mechanisms on how the Sustainable Acquisition processes function at Fermilab. However, certain observations are noted in this review and described below.

FESHM 5011 references E.O. 13514 as providing the underlying requirement for sustainable acquisition and is part of the FESHM 1070, Work Smart Standards set; it should be noted that E.O. 13423 also provides requirements for sustainable acquisition and should be referenced in FESHM 5011 as well.

The responsibility section for employees found in Section 3.5 needs clarification to ensure that employees understand that purchasing sustainable products is a requirement.

FESHM 5011 does not include any mechanism for monitoring purchases of sustainable products which would be useful for the setting of objectives and targets within its Environmental Management System (EMS).

- **Fermilab 2010 Site Sustainability Plan**
Fermilab's 2010 Site Sustainability Plan (SSP) outlines Fermilab's plan to meet the sustainability goals in E.O. 13423, E.O. 13514, and DOE's Strategic Sustainability Performance Plan (SSPP). Section 2.8 Sustainable Acquisition encourages the supply or use of products and services that are energy efficient, water efficient, bio-based, environmentally preferable, non-ozone depleting, contain recycled content, or are non-toxic or less toxic alternatives for all procurement actions.

The SSP states that Fermilab will incorporate applicable language from the DOE Sustainable Acquisition regulations (Federal Register Vol. 75, No. 183, Pages 57690-57696) into its procurement documents, including sub-contracts, the Fermilab Procurement Manual, and construction specifications.

Fermilab created Environmental Management Program (EMP) 201005: Materials – Procurement Environmentally Preferable Purchasing (EPP) in February 2010, updated the Fermilab Procurement Manual in December 2010, and created FESHM 5011: Sustainable Acquisition in January 2011 as part of its efforts to improve its Sustainable Acquisition program. The Fermilab Procurement Manual references the provisions of E.O. 13423 but does not reference the provisions of E.O. 13514.

The SSP also states that Fermilab has developed sustainable acquisition training to educate Fermilab employees about requesting sustainable products in contracts and for all other purchases.

- **PPTRS**

The PPTRS provides the mechanism the DOE utilizes to measure its performance for Sustainable Acquisition; for Fiscal Year 2011 the data call that DOE is planning on requesting of the field is that they review and report on new contract actions in the categories of construction (major, minor, renovation and repair) and custodial. There is a requirement that for these two categories that they capture all significant opportunities for sustainable acquisition to be considered compliant and that 95% of all contract actions be compliant in the goal that DOE has set for itself and which is consistent with the requirements of E.O. 13514.

The review evaluated 8 construction contracts and 2 custodial contracts and related documents such as statement of works and exhibits that were issued in Fiscal Year 2011 to determine the types of clauses and specifications that would demonstrate that they captured all significant opportunities for sustainable acquisition related to nature of the work activity.

It was determined that although construction contracts contained clauses related to sustainable acquisition and were generally acceptable, they did not comprehensively address all opportunities for sustainable acquisition nor were they up to date with all of the more recent sustainable acquisitions products categories such water saving fixtures and bio-based products. Additionally, related construction contract documents such as shop material drawing approvals demonstrated that recycled products were included in certain construction projects. The monitoring of the amount of recycled products used in construction projects was being done in an ad hoc fashion and it was not readily apparent as to the total quantities of recycled products being used.

It was determined that the custodial contracts that were reviewed provided that sustainable or recycled products be used and monitoring of the products used through purchases and recycle quantities was being completed.

- **Environmental Management Program Form #2010005, Materials - Procurement Environmentally Preferable Purchasing**

Fermilab developed Environmental Management Program (EMP) Form #2010005, Materials – Procurement Environmentally Preferable Purchasing in February 2010. This EMP was developed as a corrective action to a Finding issued in the 2009 EPP assessment conducted by FSO. The EMP included 1) the establishment of an Ad Hoc Group to review Director's Policy #3 (ES&S) and clarify the requirements for sustainable acquisition, 2) update FESHM 5010 to include ES&H review for sustainable acquisition products, 3) provide resources and tools for employees to easily identify sustainable acquisition products to purchase, 4) educate employees on sustainable acquisition requirements at the Earth Day Fair, and 5) educate employees on sustainable acquisition via a one-time online training. The EMP proposed to track the objectives of the EMP by conducting "spot check" surveys of requisitions and using Oracle to track sustainable acquisition requisitions.

Director's Policy #3 was reviewed by the Ad Hoc Group in March 2010 and found to be adequate to address sustainable acquisition implementation. Rather than updating FESHM 5010, FESHM 5011: Sustainable Acquisition was developed in January 2011. The Sustainable Acquisition website was developed and online in September 2010. Fermilab educated employees on sustainable acquisition requirements at the Earth Day Fairs in April 2010 and April 2011. The online training course for Sustainable Acquisition was developed and available in April 2011.

The Environmental Officers interviewed stated that they "spot check" requisitions to see if the purchases are 'environmentally sensitive'. These "spot checks" are usually conducted after purchases are made with ProCards rather than before purchases are made. Requisitions and ProCard purchases are reviewed by Division and Section Senior Safety Officers to see that green products are being purchased prior to purchase approval. ProCard purchases account for less than 3% of Fermilab purchases (dollar value). The Fermilab Stock Room has the ability to query and track all purchases made through the Stock Room.

Fermilab has not developed a system or process or an Oracle database to track sustainable acquisition requisitions. Until resources are available to develop a lab-wide Oracle database to track sustainable acquisition requisitions, Fermilab plans to use an Excel spreadsheet as an interim measure to track sustainable acquisition requisitions. Sustainable acquisition objectives and targets need to be established as well as an Oracle database to monitor and measure sustainable acquisition purchases. The procedures for sustainable acquisition monitoring and measurement need to be incorporated into EMP #2010005 or FESHM 5011.

- **Sustainable Acquisition Training**

Fermilab has developed a sustainable acquisition training program that is mandatory for all Fermilab employees on a one-time basis. Sustainable Acquisition Training Course FN000472/CB is a 35 page on-line training module that is required training in each Fermilab employee's Individual Training Needs Assessment (ITNA). To date, 90 percent of Fermilab's employees have completed the sustainable acquisition training. Fermilab has also provided informal training on sustainable acquisition at the Earth Day Fairs conducted in 2010 and 2011.

Fermilab has created a Sustainable Acquisition website

<http://esh.fnal.gov/xms/Resources/EPP> where Fermilab employees can learn about sustainable acquisition and shop for sustainable acquisition products in Fermilab's Stock Room and other websites. Fermilab's Stock Room has screened its inventory to ensure that green products are stocked. Links to outside sustainable acquisition vendors and websites include: EPA Vendor Product Search, Green Depot, Green Seal, GSA Advantage, Office Supplies -- EPA Vendor List, and USDA BioPreferred Catalog.

- **DEAR and Federal Acquisition Rules (FAR) Clauses**

Sustainable Acquisition as defined in the DEAR Clauses requires the supply or use of products and services that are energy efficient, water efficient, bio-based, environmentally preferable, non-ozone depleting, contain recycled content, or are non-toxic or less toxic alternatives for all procurement actions unless a documented exemption applies.

The DEAR Clauses found at 48 CFR 923.1 and 970.2301 provide the requirements applicable for sustainable acquisition programs and are applicable to Departmental M&O contractors. These clauses referenced above were incorporated into Fermilab's M&O contract in February 2011. Fermilab is currently working on draft contract clause FL-300 to address these sustainable acquisition DEAR clauses in its subcontracts. This draft contract clause is more comprehensive and up to date than current utilized contract clauses that were discussed in the PPTRS section of this report; however, it is not clear how specific opportunities for sustainable acquisition such as recycled product usage or "Energy Star" product purchases are linked in the contracting activity processes (i.e., Fermilab Material Submittal for Approval).

The FAR Clause found at 48 CFR 52.223-19 is consistent with E.O. 13423 and 13514 and provides that M&O contractors are required to implement an EMS as part of their environmental programs. This FAR Clause has been proposed for inclusion in Fermilab's M&O contract. EMS require that for all identified significant environmental aspects, such as sustainable acquisition, that appropriate objectives and targets be set, operational controls as needed, and that monitoring and measurement systems including records be established. Fermilab's current Sustainable Acquisition program, as defined in FESHM 5011 and in the context

of its EMS, needs to be modified to meet this upcoming change to its M&O contract with the inclusion of this FAR Clause.

Conclusion: This assessment of the Sustainable Acquisition program at Fermilab determined that substantial progress has been made since the 2009 assessment conducted on this topical area. FESHM 5011 has been developed to more fully address the applicable requirements and better define responsibilities; however, a mechanism to monitor and measure sustainable acquisition activities has not been included in FESHM 5011. The recent FAR Clause on EMS discussed in this report that will be included in the Fermilab M&O contract in the near future will require that the EMS framework which includes monitoring and measurement for all significant environmental aspects (i.e., sustainable acquisition) address this element.

Additionally, the recent DEAR Clause which is currently in the Fermilab M&O contract requires that Fermilab appropriately include sustainability clauses into the subcontracts it enters into with subcontractors. Fermilab has developed a draft contract clause named FL-300 to address this DEAR Clause and it needs to expeditiously finalize this draft contract clause.

Fermilab has developed training on sustainable acquisition for most of its employees to assist them in its implementation as well as the recently developed Sustainable Acquisition website; these tools are a strength that will provide improvement in this area.

Finding Level Definitions

Level 1 Findings – These are issues of major significance that warrant a high level of attention on the part of line management. Typically these reflect a gap in addressing requirements or a systemic problem with implementing the requirements. If left uncorrected, this level of finding could negatively impact the adequacy of operations and/or accomplishment of the SC mission.

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Findings:

Level 3 Finding

Fermilab needs to determine and implement the appropriate mechanism for the monitoring and measurement of its Sustainable Acquisition program.

References:

EMP 201005, dated 6/10
FESHM 5011, dated 1/11
Fermilab SSP, dated 12/10
Fermilab Procurement Manual, dated 12/10
Fermilab Draft Contract Clause FL-300
Fermilab Sustainable Acquisition Training Course
Fermilab Sustainable Acquisition Website <http://esh.fnal.gov/xms/Resources/EPP>
Clorica Management Corporation Janitorial Contract 590754, dated 4/9/10
House Helpers for Hire, Inc. Housekeeping Contract 599912, dated 6/6/11
Industrial Area Site Upgrades Construction Contract 599204, dated 4/5/11
FCC Sanitary Sewer Construction Contract 599258, dated 4/5/11
NML Injector Laser Lab Construction Contract 599286, dated 4/8/11
MINOS Chiller Replacement Construction Contract 600585, dated 6/28/11
IB-3 Addition Landscape Construction Contract 599205, dated 7/18/11
IB-3 Addition Tech Room Upgrades Construction Contract 599206, dated 7/11/11
FCC Precast Panel Upgrade Construction Contract 600816, dated 7/11/11
ICW Sectionalization Construction Contract 596155, dated 7/18/11

Personnel Interviewed:

Bob Cibic, BSS
Gordon Bagby, BSS
Gary Golinski, BSS
Jack Hawkins, BSS
Greg Mitchell, BSS
Jameson Eisenmenger, Directorate
Gary Leonard, Directorate
Amber Kenney, ESH
Katie Kosirog, ESH
Mike Becker, FESS
Steve Dixon, FESS
Ron Foutch, FESS
Lee Hammond, FESS
Rod Walton, FESS
Angela Sands, PPD
Bridget Scerini, TD

